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10/606,918	06/26/2003	Fred S. Cook	2182(16166)	5738

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EXAMINER	
FORD, GRANT M	

ART UNIT	PAPER NUMBER
2141	

MAIL DATE	DELIVERY MODE
09/08/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/606,918	COOK, FRED S.	
	Examiner	Art Unit	
	GRANT FORD	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 June 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 6/12/2008, with respect to the prior art of Rawlins in view of newly amended claim limitations, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Bruck, as outlined below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-7,10-13,and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rawlins et al. (7,069,337), hereinafter referred to as Rawlins, in view of Bruck et al. (7,299,294), hereinafter referred to as Bruck.

a. As per claim 1, Rawlins discloses a method comprising the steps of:

interconnecting a plurality of physical processing components within said network for providing a plurality of virtual processing elements that are accessible by respective network traffic paths (Col 6 lines 42-64);

representing a pool of said virtual processing elements using a resource aggregator, each virtual processing element having a capacity allocable according to a

respective communication transfer rate based on a sustainable data flow rate to complete respective data processing transactions (Col 8 line 58 through Col 9 line 7, Col 10 lines 12-34);

receiving a reservation request for utilizing specified processing resources (Col 8 line 58 through Col 9 line 7);

said resource aggregator exclusively reserving at least one virtual processing element for providing capacity to satisfy said reservation request in response to said respective communication transfer rate (Col 9 line 44 through Col 10 line 34); and

allocating use of a respective network traffic path to service said reservation request in response to said identified virtual processing element (Col 9 line 44 through Col 10 line 34). However, Rawlins fails to explicitly disclose wherein the plurality of virtual processing elements that are accessible by respective network traffic paths perform a respective data processing operation on user-supplied data.

Bruck teaches wherein the plurality of virtual processing elements that are accessible by respective network traffic paths perform a respective data processing operation on user-supplied data (Abstract, Col 4 lines 16-45, Col 5 line 48 through Col 6 line 20). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of virtual processing elements performing data processing operations on user-supplied data with the prior art of Rawlins. One of ordinary skill in the art would have done so for the purpose of providing functions such as a web file server, FTP server, or application server, as well as providing dynamic

reconfiguration processing for virtual pools of resources (Col 4 lines 16-45, Col 6 lines 5-20).

b. As per claim 2, Rawlins discloses wherein said plurality of virtual processing elements includes multiple component types for performing respective processing operations (Col 6 lines 56-64, Col 9 lines 44-63, Col 12 lines 46-63).

c. As per claim 3, Rawlins discloses wherein said pool includes composite resource sets combining said respective processing operations to implement a predetermined composite service, each composite resource set being comprised of a plurality of said multiple component types (Figure 6, Col 11 lines 13-54).

d. As per claim 4, Rawlins discloses wherein said respective processing operations within a composite resource set are characterized by predetermined interactions for integrating said processing operations into a service function (Col 9 lines 44-63).

e. As per claim 5, Rawlins discloses wherein said processing operations include a data manipulation function and a storage function (Col 10 lines 12-34, Col 12 lines 46 through Col 13 line 16, Col 16 lines 1-32).

f. As per claim 6, Rawlins discloses wherein each of said composite resource sets further comprises at least one transport link within said network for connecting said multiple component types (Figure 3, Col 7 line 44 through Col 8 line 11).

g. As per claim 7, Rawlins discloses wherein said network is comprised of an IP network and wherein said step of allocating use of a respective network traffic path is

comprised of sending an IP message in a bandwidth reservation request (Col 8 line 58 through Col 9 line 7).

h. As per claim 10, Rawlins discloses a method comprising:

a plurality of physical processing components advertising to an aggregator their respective virtual processing components according to a plurality of component types for performing respective processing operations and advertising respective capacities of said virtual processing components, wherein said virtual processing components are addressable within said network as respective virtual network elements (Col 6 lines 42-64, Col 8 line 58 through Col 9 line 7, Col 10 lines 12-34);

said aggregator constructing a plurality of service resource sets from said virtual processing components according to a service type, each service resource set comprised of a combination of said virtual network elements (Col 8 line 58 through Col 9 line 7, Col 10 lines 12-34);

said aggregator receiving a reservation request from a remote user for utilizing resources according to said service type (Col 8 line 58 through Col 9 line 7);

said aggregator allocating a selected service resource set for fulfilling said reservation request (Col 9 line 44 through Col 10 line 34); and

said aggregator identifying said selected service resource set to said remote user (Col 3 lines 7-32). However, Rawlins fails to explicitly disclose wherein the plurality of virtual processing elements that are accessible by respective network traffic paths perform a respective data processing operation on user-supplied data.

Bruck teaches wherein the plurality of virtual processing elements that are accessible by respective network traffic paths perform a respective data processing operation on user-supplied data (Abstract, Col 4 lines 16-45, Col 5 line 48 through Col 6 line 20). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of virtual processing elements performing data processing operations on user-supplied data with the prior art of Rawlins. One of ordinary skill in the art would have done so for the purpose of providing functions such as a web file server, FTP server, or application server, as well as providing dynamic reconfiguration processing for virtual pools of resources (Col 4 lines 16-45, Col 6 lines 5-20).

i. As per claim 11, Rawlins discloses wherein said processing operations include a data manipulation function and a storage function (Col 10 lines 12-34, Col 12 lines 46 through Col 13 line 16, Col 16 lines 1-32).

j. As per claim 12, Rawlins discloses wherein each of said composite resource sets further comprises at least one transport link within said network for connecting said multiple component types (Figure 3, Col 7 line 44 through Col 8 line 11).

k. As per claim 13, Rawlins discloses wherein said network is comprised of an IP network and wherein said step of allocating use of a respective network traffic path is comprised of sending an IP message in a bandwidth reservation request (Col 8 line 58 through Col 9 line 7).

I. As per claim 16, Rawlins discloses an apparatus for providing a data processing service comprising:

a network including a plurality of transport links (Figure 3, Col 7 line 44 through Col 8 line 11);

a plurality of physical processing components connected within said network for advertising a plurality of virtual processing elements that are accessible by respective network traffic paths to perform respective processing operations, each virtual processing element having a capacity allocable according to a respective communication transfer rate based on a sustainable data flow to complete respective data processing transactions (Col 6 lines 42-64, Col 8 line 58 through Col 9 line 7, Col 10 lines 12-34);

a resource aggregator connected within said network for representing a pool of said advertised virtual processing elements, receiving a reservation request for utilizing specified processing resources, exclusively reserving at least one virtual processing element for providing capacity to satisfy said reservation request in response to said respective communication transfer rate, and allocating use of a respective network traffic path to service said reservation request in response to said identified virtual processing element (Col 3 lines 7-32, Col 8 line 58 through Col 9 line 7, Col 10 lines 12-34). However, Rawlins fails to explicitly disclose wherein the plurality of virtual processing elements that are accessible by respective network traffic paths perform a respective data processing operation on user-supplied data.

Bruck teaches wherein the plurality of virtual processing elements that are accessible by respective network traffic paths perform a respective data processing operation on user-supplied data (Abstract, Col 4 lines 16-45, Col 5 line 48 through Col 6 line 20). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of virtual processing elements performing data processing operations on user-supplied data with the prior art of Rawlins. One of ordinary skill in the art would have done so for the purpose of providing functions such as a web file server, FTP server, or application server, as well as providing dynamic reconfiguration processing for virtual pools of resources (Col 4 lines 16-45, Col 6 lines 5-20).

m. As per claim 17, Rawlins discloses an apparatus comprising:

a network including a plurality of transport links (Figure 3, Col 7 line 44 through Col 8 line 11);

a plurality of physical processing components connected within said network for advertising a plurality of virtual processing components according to a plurality of component types for performing respective processing operations and advertising respective capacities of said virtual processing components, wherein said virtual processing components are addressable within said network as respective virtual network elements (Col 6 lines 42-64, Col 8 line 58 through Col 9 line 7, Col 10 lines 12-34); and

and aggregator for constructing a plurality of service resource sets from said virtual processing components according to a service type, each service resource

set comprised of a combination of said virtual network elements (Col 8 line 58 through Col 9 line 7, Col 10 lines 12-34), receiving a reservation request from a remote user for utilizing resources according to said service type (Col 8 line 58 through Col 9 line 7), allocating a selected service resource set for fulfilling said reservation request (Col 9 line 44 through Col 10 line 34), and identifying said selected service resource set to said remote user (Col 3 lines 7-32). However, Rawlins fails to explicitly disclose wherein the plurality of virtual processing elements that are accessible by respective network traffic paths perform a respective data processing operation on user-supplied data.

Bruck teaches wherein the plurality of virtual processing elements that are accessible by respective network traffic paths perform a respective data processing operation on user-supplied data (Abstract, Col 4 lines 16-45, Col 5 line 48 through Col 6 line 20). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of virtual processing elements performing data processing operations on user-supplied data with the prior art of Rawlins. One of ordinary skill in the art would have done so for the purpose of providing functions such as a web file server, FTP server, or application server, as well as providing dynamic reconfiguration processing for virtual pools of resources (Col 4 lines 16-45, Col 6 lines 5-20).

n. As per claim 18, Rawlins discloses wherein said processing operations include a data manipulation function and a storage function (Col 10 lines 12-34, Col 12 lines 46 through Col 13 line 16, Col 16 lines 1-32).

o. As per claim 19, Rawlins discloses wherein each of said composite resource sets further comprises at least one transport link within said network for connecting said multiple component types (Figure 3, Col 7 line 44 through Col 8 line 11).

p. As per claim 20, Rawlins discloses wherein said network is comprised of an IP network and wherein said step of allocating use of a respective network traffic path is comprised of sending an IP message in a bandwidth reservation request (Col 8 line 58 through Col 9 line 7).

4. Claims 8-9,14-15,and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rawlins and Bruck in view of Wright (7,082,102).

a. As per claims 8,14,and 21, Rawlins and Bruck teach the invention substantially as claimed above. Additionally, Rawlins discloses the use of an IP network (Fig. 4, Col 7 lines 1-11), however Rawlins fails to explicitly disclose the use of label-switched paths.

Wright discloses wherein network traffic paths are comprised of label-switched paths (Col 2 lines 12-19, Col 3 line 34 through Col 4 line 16). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of label-switch paths with policy-based service class routing systems. One of ordinary skill in the art would have been motivated to do so for the purpose of providing communications across a MPLS environment (Col 2 lines 12-19).

b. As per claims 9,15,and 22, Rawlins and Bruck teach the invention substantially as claimed above. However, Rawlins fails to explicitly teach the use of an ATM network wherein said network traffic paths are comprised of ATM virtual paths.

Wright discloses the use of an ATM network wherein network traffic paths are comprised of label switched paths (Col 3 lines 34-44 and 61-63). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of an ATM network and virtual paths with policy-based service class routing systems. One of ordinary skill in the art would have done so for the purpose of providing legacy network support which is capable of performing label lookup and replacement (Col 3 lines 34-44 and 61-63).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GRANT FORD whose telephone number is (571)272-8630. The examiner can normally be reached on 8-5:30 Mon-Thurs alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571)272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/G. F./
Examiner, Art Unit 2141

/Andrew Caldwell/
Supervisory Patent Examiner, Art Unit 2141